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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,653	08/19/2003	Takuya Otsuka	Q76921	3747

23373 7590 12/27/2004  
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EXAMINER

FISHMAN, MARINA

ART UNIT	PAPER NUMBER
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2832

DATE MAILED: 12/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/642,653	<b>Applicant(s)</b> OTSUKA ET AL.	
	<b>Examiner</b> Marina Fishman	<b>Art Unit</b> 2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***General status***

1. This is a Final Action on the Merits. Claims 1 - 10 are pending in the case and are being examined.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 – 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rokunohe et al. [US 6,680,453] in view of Furuta et al. [US 6,538,224].

Applicant Rokunohe et al. disclose a gas-insulated switchgear having:

- a tank filled with an electrically insulating gas [Abstract];
- first and second conductors [23, second conductor connected to second electrode 21b] disposed within said tank;
- a disconnecter [2] for disconnecting the first conductor and the second conductor from each other; and
- a grounding switch [3] for grounding the first conductor when the disconnecter is in an open position;
- the disconnecter includes: a first and second fixed electrodes [212, second electrode connected to 21b]

disposed on the first and second conductors, respectively, a bridging movable electrode [19] that is always maintained in contact with said first electrode [212] and that is slidably movable for contacting with and separating from the second fixed electrode to connect and disconnect the first and second fixed electrodes, and an operating mechanism [24, 20, 216] for opening and closing operation of the movable electrode;

- the grounding switch [3] includes the bridging movable electrode [19] which is in contact with the first contact [212], and a third fixed grounding electrode [25] disposed within the tank [9] and being capable of contacting with the movable electrode [19] when the movable electrode is separated from the second electrode.

Regarding Claims 1, 2, 7 and 8, Rokunohe et al discloses the instant claimed invention except for the electrically insulating operating rod extending through the first fixed electrode in the direction of movement of the moveable electrode. Furuta et al. disclose a gas insulation switch apparatus having an operating rod [25] extending in the direction of movement of the moveable electrode [Figures 12, 13]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the operating rod in the direction of movement of the moveable electrode in

Applicant Rokunohe et al., as suggested by Furuta et al., in order to disconnect the switch and electrically isolate the operating mechanism from the operating rod.

Regarding Claims 3, 4, 9 and 10 Rokunohe et al discloses the disconnecter and the grounding switch are provided with insulation supports supporting the first, second fixed electrodes and the movable electrode, and are supported only by a flange [not numbered in figure 19] closing the open end of the tank. The disconnecter and the grounding switch are accommodated within the tank.

#### ***Response to Arguments***

4. Applicant's arguments filed 11/30/2004 have been fully considered but they are not persuasive.

The Applicant has argued "as recited in Claim 1, the electrically insulated operating rod is defined as extending through the first electrode in the direction of movement of the movable electrode. This is significant because it places the mechanically operated portions of the switch outside of the high voltage environment of the switch. By contrast, Rokunhoe et al. places the gear and pinion mechanism within the operating switch environment. This creates potential for high voltage breakdown, short circuit and misoperation. The present invention avoids such problems with its rod-based design."

To address the issues, as pointed out in the body of the rejection, the Examiner has used the teaching of insulating operating rod mechanism of Furuta et al. and modified the primary reference of Rokunhoe et al. resulting in the claimed invention, and therefore, the modified device of Rokunhoe et al. would have insulating rod

extending in the direction of movement of the movable electrode. Since the rack and pinion mechanism of Rokunhoe et al. are being replaced with the insulating rod of Furuta et al., the argument that "mechanically operated portions of the switch are placed outside of the high voltage environment", though not recited in the claim, would also be automatically satisfied. As to the recitation of "the operating rod extending through the first electrode" in claim 1, is concerned, it is pointed out that the operating rod only extends through a portion of the first electrode [instant Figure 2c] and for modified device of Rokunhoe et al., once the rack and pinion mechanism are replaced with the insulating rod of Furuta et al. the movable electrode [19] can be made considerably shorter and the modified device would satisfy the limitation of the claimed invention.

### ***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

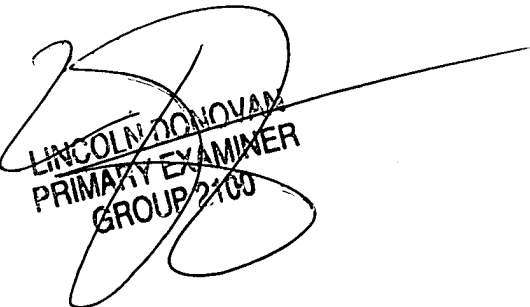
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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marina Fishman whose telephone number is 571-272-1991. The examiner can normally be reached on 7-5 M-T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marina Fishman  
December 21, 2004

  
LINCOLN DONOVAN  
PRIMARY EXAMINER  
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